

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

APPLICANT: WEISSER

SERIAL NO. 10/ 506,477 ATT. DOCKET: 870-003-174

FILED: 1 SEP. 2004 (HEREWITH) ART UNIT: 3746

FOR: FAN HAVING AN INTEGRATED IP PROTECTION

**RESPONSE TO EXAMINER REQUEST FOR  
INFORMATION PURSUANT TO 37 CFR 1.105(a)(1)(viii)**

27 AUG. 2007

COMMISSIONER FOR PATENTS  
PO BOX 1450  
ALEXANDRIA VA 22313-1450

Sir:

Examiner Dwivedi telephoned US counsel on 21 AUG. 2007, inquiring why claim 1 recites the phrase "substantially fluid-tight annular space" which also appears at Abstract, line 9, and "clean text" specification page 2, line 12. The Examiner will doubtless recall, from the Underwriters' Laboratories document listed at the bottom of form PTO-1449 filed SEP. 2004, and considered by the Examiner on 29 NOV. 2006, that Ingress Protection **code 44**, discussed at line 8 of the present specification, requires "Protection against splashing water from all directions." This does not mean completely fluid-tight, but rather minimizes the likelihood of water getting into the motor and causing a short-circuit there.

An electric motor, which gets damp, dries out during operation fairly quickly because the rotation causes constant air circulation and because the motor dissipates considerable heat, from resistance losses in the windings and any friction

---

This document is being submitted via EFS-WEB on 27 AUG. 2007.

/Milton Oliver/

in the bearings. Nevertheless, the motor should be substantially fluid-tight, as shown in present FIG. 8, where the "can" has a wall 56 with a skirt 10 which is welded fluid-tightly to flange 46, while the upper end 6 of wall 56 is not welded to anything, but just placed, surrounding shaft 40. See specification page 6, last 5 lines, & page 7, 1<sup>st</sup> 4 lines.

The shaft 40 has to rotate within the opening at the top of wall 56, so this interface cannot be made completely fluid-tight, but only substantially fluid-tight, which suffices in most kinds of use of such a motor. The present application, as published, US 2005-123423-A1, explains this in Paragraph 0034 with respect to FIGS. 1-8 and in Paragraph 0036 with respect to FIGS. 9-12.

A completely fluid-tight or hermetic connection would not be possible in motors of this type, because the rotating shaft 40 extends through the stationary protective housing 4, as stated in Paragraph 0034, last 3 lines.

The same applies with respect to the (second) embodiment of FIGS. 9-12, where the shaft 40 similarly extends through the stationary part 68, as shown in FIGS. 11 and 12. Such a structure cannot be completely fluid-tight. This is analogous to a ship, where the propeller shaft must penetrate the hull, so some minimal amount of water does penetrate, despite best efforts to seal the interface between (rotating) shaft and (stationary) hull.

CONCLUSION

In conclusion, it would not be appropriate to delete the word "substantially" from claim 1 because the interface with the rotor shaft is not completely fluid-tight. Rather, applicant has invented a novel motor structure which provides effective protection against splashing water, in accordance with the relevant industrial standards in the US and Germany. It is a good and economical solution, not suggested by the art of record.

Respectfully submitted,

/Milton Oliver/

Milton Oliver, Reg. # 28,333  
Attorney for Applicant  
WARE, FRESSOLA, VAN DER SLUYS  
& ADOLPHSON, LLP  
755 Main Street  
P.O. BOX 224  
MONROE, CT 06468-0224  
TEL: 203-261-1234  
FAX: 203-261-5676  
EMAIL: [miltonoliver@ieee.org](mailto:miltonoliver@ieee.org)

DATE: 27 AUG. 2007

ENC.: WEISSER pub. US-2005-123 423-A  
BOSCH Automotive Handbook (1993 ed), p. 127  
which refers to **DIN** (Deutsche Ind. Normen)  
**400050** (German Industrial Standard)